

IN THE SPECIFICATION:

The specification as amended below with replacement paragraphs shows added text with underlining and deleted text with ~~striketrough~~.

Please REPLACE the paragraph beginning at page 4, line 17 with the following paragraph:

The actuator 200 determines the position of a head (e.g., a pickup head and the like) recording data onto a disk or reproducing recorded data. Since the impact of eccentricity upon the system varies depending on disk reproduction speed, an appropriate compensation control for an error due to the eccentricity is needed to drive the actuator 200 to accurately follow a track. The error detector 210 detects an error $e(t)$ (e.g., position error) between a reference head position $d(t)$ and an actual position of the head on the disk. The first compensation controller 220 receives the position error $e(t)$ from the error detector 210 and generates and outputs an actuator control value $U_{fb}(t)$ to compensate for the position error $e(t)$ by changing the actual position of the head. The actuator control value $U_{fb}(t)$ output from the first compensation controller 220 is obtained, for example, by various possible control algorithms, generally by a phase lead-lag controller 260.

Please REPLACE the paragraph beginning at page 4, line 17 with the following paragraph:

The first compensation controller 220 serves as a feedback controller that receives a reference signal and receives an actual signal of the actuator 200, which corresponds to the actual position of the head, and performs a compensation control using the received signal. The second compensation controller 230 receives and stores control values for one period to compensate for an error of the actuator 200 caused by periodic disturbances such as eccentricity of the disk at a specific reproduction speed. Here, the control values refer to estimated values of gain and phase characteristics of the actuator 200 at the specific reproduction speed to be used for eccentricity compensation at varying reproduction speeds. The second compensation controller 230 serves as a feedforward look-up table 250 pre-storing estimated compensation values determined from simulations, tests, or experience by estimating the gain and phase characteristics of the actuator 200 upon eccentricity at specific reproduction speeds. The gain/phase adjuster 240 adjusts the gain and phase of an output signal from the second compensation controller 230 according to varying reproduction speeds based on the frequency response characteristics of the actuator 200 and outputs an adjusted value $U_{ff}(t)$.